

Montana Department of Natural Resources and Conservation
Water Resources Division
Water Rights Bureau

ENVIRONMENTAL ASSESSMENT
For Routine Actions with Limited Environmental Impact

Part I. Proposed Action Description

1. **Applicant/Contact name and address:**

NEAL AND KEREN RASH
43 O'CALLAHAN LN
TROUT CREEK, MT 59874-9580

2. **Type of action:** Groundwater Application for Beneficial Water Use Permit 76N 30155538

3. **Water source name:** Groundwater

4. **Location affected by project:**

Point of diversion: NESESW of Section 12, Township 25N, Range 32W, Sanders County, Montana.

Place of use: N2NWNE of Section 14, Township 25N, Range 32W, Sanders County, Montana.

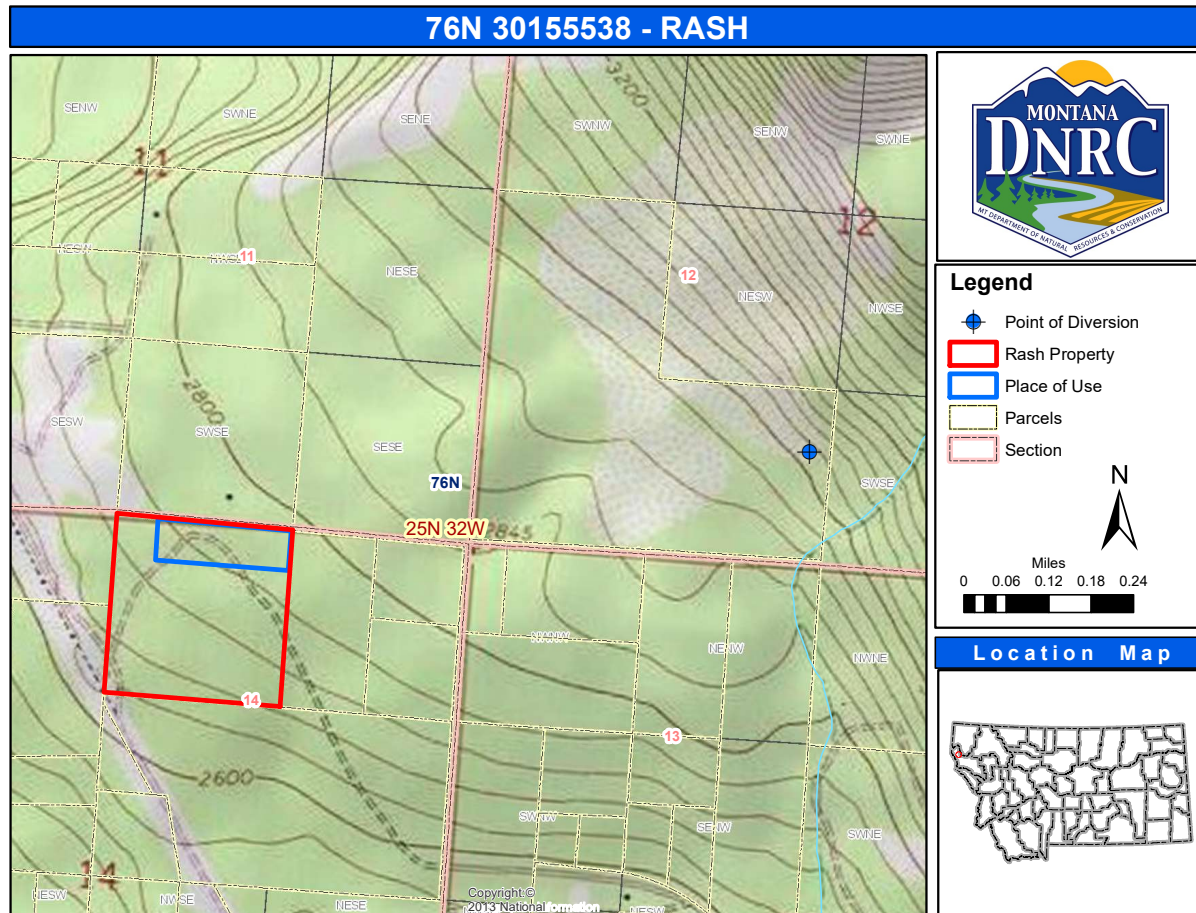


Figure 1. Map of the proposed places of use and points of diversion.

5. Narrative summary of the proposed project, purpose, action to be taken, and benefits:

The Applicant proposes to divert groundwater at 17.0 GPM up to 7.0 AF annually by means of a developed spring from January 1 – December 31 for multiple domestic use and from April 1 – October 31 for lawn and garden irrigation. The Applicant proposes to use a volume of 2.0 AF of water to supply the multiple domestic use for two households and 5.0 AF of water to irrigate 2.0 acres of lawn and garden (including a greenhouse).

The point of diversion (POD), locally referred to as the Little Spring, is a shared developed spring in the NESESW of Section 12, Township 25N, Range 32W, Sanders County, Montana (Figure 1). The place of use for the multiple domestic and lawn and garden purposes is in the N2NWNE of Section 14, Township 25N, Range 32W, Sanders County, Montana (Figure 1).

This Application seeks to permit the multiple domestic and lawn and garden irrigation water needs for the Applicant's property out of the Little Spring developed spring located on a nearby property to the northeast of their property. The Little Spring development is a shared diversion that serves water to four properties in addition to the Applicant's property. Four active water rights divert from the Little Spring development: groundwater certificates 76N 30015041, 76N 77467-00, 76N 81492-00, and 76N 30108961.

The point of diversion is in the Clark Fork, Below Flathead River Basin (76N) in an area that is not subject to water right basin closures or controlled groundwater area restrictions.

The DNRC shall issue a water use permit if the applicant proves the criteria in 85-2-311 MCA are met.

6. Agencies consulted during preparation of the Environmental Assessment:

- U.S. Fish and Wildlife Service (USFWS): National Wetlands Inventory Wetlands Mapper
- Montana Natural Heritage Program: Endangered, Threatened Species, and Species of Special Concern
- Montana Department of Fish Wildlife & Parks (MTDFWP): Dewatered Stream Information
- Montana Department of Environmental Quality (MTDEQ): Clean Water Act Information Center
- U.S. Natural Resources Conservation Service (NRCS): Web Soil Survey

Part II. Environmental Review

1. Environmental Impact Checklist:

<p>PHYSICAL ENVIRONMENT</p>

WATER QUANTITY, QUALITY AND DISTRIBUTION

Water quantity - Assess whether the source of supply is identified as a chronically or periodically dewatered stream by DFWP. Assess whether the proposed use will worsen the already dewatered condition.

The Applicant will divert groundwater via a developed spring. Given the characteristics of the source, performing an aquifer test was not possible; therefore, the DNRC did not evaluate potential hydraulic connectivity to surface water sources for this application since the spring source itself was treated like a surface water source. The developed spring is approximately 1.4 miles upgradient from Noxon Reservoir (Lower Clark Fork River). If undeveloped, water from the spring would eventually flow down (via either surface or base flow) to Noxon Reservoir. Noxon Reservoir (Lower Clark Fork River) is not on the MTDFWP list of chronically or periodically dewatered streams.

Determination: No significant impact.

Water quality - Assess whether the stream is listed as water quality impaired or threatened by DEQ, and whether the proposed project will affect water quality.

The Department assessed the water quality status of the nearest surface water source to this application's source of groundwater supply: Noxon Reservoir (Lower Clark Fork River).

MDEQ Clean Water Act Information Center's 2020 Water Quality Information report lists Noxon Reservoir as:

- i. Water Quality Category 1: Waters for which all applicable beneficial uses have been assessed and all uses have been determined to be fully supported.

- ii. Use Class B-1: Waters are to be maintained suitable for drinking, culinary, and food processing purposes, after conventional treatment; bathing, swimming, and recreation; growth and propagation of salmonid fishes and associated aquatic life, waterfowl and furbearers; and agricultural and industrial water supply.

Noxon Reservoir is fully supporting for all beneficial uses for which it has been assessed (aquatic life, agriculture, drinking water, and primary contact recreation).

The proposed project will not significantly affect water quality in these sources.

Determination: No significant impact.

Groundwater - *Assess if the proposed project impacts ground water quality or supply. If this is a groundwater appropriation, assess if it could impact adjacent surface water flows.*

The developed spring is a gravity fed diversion that diverts water via buried perforated pipes. Water from those pipes is then collected in and distributed from a partially buried cistern. A traditional aquifer test is not possible for this type of source. Since the developed spring captures groundwater that would otherwise have flowed naturally to the surface and then down gradient to the nearest surface source, the primary potentially impact surface water source is Noxon Reservoir (Lower Clark Fork River). Noxon Reservoir (Lower Clark Fork River) is not a chronically or periodically dewatered stream and the proposed appropriation would not significantly impact flows in that source.

Determination: No significant impact.

DIVERSION WORKS - *Assess whether the means of diversion, construction and operation of the appropriation works of the proposed project will impact any of the following: channel impacts, flow modifications, barriers, riparian areas, dams, well construction.*

The Little Spring developed spring has existed since at least 1991 when the first water right (76N 77467-00) was filed on this source. The development has been altered and reconfigured over the years, but it currently exists in the following form: two buried 4-inch perforated pipes divert water from the spring source into an upper cistern. The upper cistern, which first collects water from the two perforated pipes buried at the spring source above it, consists of a 4-foot tall 30-inch inner-diameter concrete cylinder that is buried approximately 3.5-feet deep. Within the cistern, three 2-inch outflow pipes with ball valves are present to convey water to the existing appropriators. The 2-inch PVC pipe and valve closest to the top of the cistern divert water to a separate lower cistern approximately 20 feet down-gradient. This lower cistern is constructed of a 2-foot inner-diameter corrugated polyethylene pipe approximately three-feet tall and left open-bottom. From the lower cistern, water is diverted by a 3-inch PVC pipe to a 1000-gallon underground holding tank for water right 76N 30108961 and the Applicant's property. From this tank, another 3-inch line diverts water out and carries it approximately 0.45 miles to a "Y" junction box. Within the junction box, two 3-inch pipes with ball valves split the flow coming from the 1000-gallon tank. The lines are reduced to 1.5-inch diameter just below the ball valves. One line carries water to the property associated with 76N 30108961 and the other will divert water to the Applicant's property. Water will flow via gravity and the drop in elevation is approximately 230 feet.

The Applicant's consultant performed flow measurements on their water system on April 29-30, 2021. For these tests, the diversions to the three most senior water rights were closed (the lowest and middle

outlet valves in the upper cistern), while system hydrants on the two properties that divert from the lower cistern were completely open. This test demonstrated a maximum diversion potential for their system of 23.6 GPM (cumulative flow from all 11 of the Applicant's hydrants operating simultaneously). This flow acceptance is further corroborated using the Hazen-Williams Equation, which finds the Applicant's gravity-fed system can accept 22.1 GPM (a 6.6% difference from the measured value). The Applicant stated in their application they will install a Dole valve to limit the delivery of water to their property to the requested 17.0 GPM flow rate.

The Applicant plans to install two 2,500-gallon storage tanks (5,000 gallons total) on their property to be filled when flow is available (such as at night during times of lower demand) to supplement their needs at times of increased demand by the other users on the Little Spring system. The lawn and garden will be irrigated via portable garden hoses supplied by 11 hydrants. The Applicant will irrigate their lawn and garden in a manner to reduce opportunities for injury to the other users, particularly 76N 30108961 (the other user of the lower cistern). Each of the Applicant's sprinklers will require up to 5 GPM using 3/8-inch nozzles and only up to three sprinklers will operate at a time to keep the use under 17.0 GPM while still providing flow for domestic fixtures.

Based on the results of the system test measurements, the calculated flow, and the system design and operation plan, the Department finds that the diversion and conveyance system is adequate to supply the requested annual volume of 7.0 AF at a flow rate of 17.0 GPM.

This project diverts from groundwater via a developed spring. It does not involve well construction and will not create any channel impacts, barriers, dams, or riparian impacts to surface waters.

Determination: No significant impact.

UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES

Endangered and threatened species - Assess whether the proposed project will impact any threatened or endangered fish, wildlife, plants, aquatic species, or any "species of special concern," or create a barrier to the migration or movement of fish or wildlife. For groundwater, assess whether the proposed project, including impacts on adjacent surface flows, would impact any threatened or endangered species or "species of special concern."

The Montana Natural Heritage Program website was reviewed to determine if there are any threatened or endangered fish, wildlife, plants, aquatic species, or any "species of special concern" in the project area that could be impacted by the proposed project. Twelve animal and two plant species of concern (below) were identified within the project area. Of these species, the Grizzly Bear (*Ursus arctos*) and the Bull Trout (*Salvelinus confluentus*) are listed as threatened by the USFWS. An adequate quantity of water will still exist in the nearby surface water sources to maintain existing populations of Bull Trout, should they exist there currently. This area is already developed, and it is not anticipated that any species of concern will be further impacted by the proposed project.

Species Group	Common Name	Scientific Name
Mammals	Fisher	Pekania pennanti
Mammals	Grizzly Bear	Ursus arctos
Mammals	Hoary Bat	Lasiurus cinereus
Mammals	Little Brown Myotis	Myotis lucifugus
Mammals	Townsend's Big-eared Bat	Corynorhinus townsendii
Mammals	Wolverine	Gulo gulo
Mammals	Yuma Myotis	Myotis yumanensis
Birds	Harlequin Duck	Histrionicus histrionicus
Birds	Northern Goshawk	Accipiter gentilis
Fish	Bull Trout	Salvelinus confluentus
Fish	Westslope Cutthroat Trout	Oncorhynchus clarkii lewisi
Invertebrates	Sheathed Slug	Zacoleus idahoensis
Vascular Plants	Diamond Clarkia	Clarkia rhomboidea
Vascular Plants	Water Star-grass	Heteranthera dubia

Determination: No significant impact.

Wetlands - Consult and assess whether the apparent wetland is a functional wetland (according to COE definitions), and whether the wetland resource would be impacted.

Determination: N/A, project does not involve wetlands.

Ponds - For ponds, consult and assess whether existing wildlife, waterfowl, or fisheries resources would be impacted.

Determination: N/A, project does not involve ponds.

GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE - Assess whether there will be degradation of soil quality, alteration of soil stability, or moisture content. Assess whether the soils are heavy in salts that could cause saline seep.

The proposed multiple domestic and lawn and garden uses will not negatively impact the soil quality, stability, or moisture content. The soil type in the project area is Noxlin-Fernline ashy silt loams, 4 to 15 percent slopes. Moderately high to high capacity to transmit water. Soils in this area are not likely susceptible to saline seep.

Determination: No significant impact.

VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS - Assess impacts to existing vegetative cover. Assess whether the proposed project would result in the establishment or spread of noxious weeds.

This area is already developed, and any existing native vegetation has likely already been disturbed. It is not anticipated that issuance of a water use permit will contribute to the establishment or spread of noxious weeds in the project area. Noxious weed prevention and control will be the responsibility of the landowners, who must follow local noxious weed regulations.

Determination: No significant impact.

AIR QUALITY - *Assess whether there will be a deterioration of air quality or adverse effects on vegetation due to increased air pollutants.*

There will be no impact to air quality associated with issuance of the proposed permit for beneficial use of groundwater.

Determination: No significant impact.

HISTORICAL AND ARCHEOLOGICAL SITES - *Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project if it is on State or Federal Lands. If it is not on State or Federal Lands simply state NA-project not located on State or Federal Lands.*

Determination: N/A, project not located on State or Federal Lands.

DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY - *Assess any other impacts on environmental resources of land, water, and energy not already addressed.*

All impacts to land, water, and energy have been identified. No further impacts are anticipated.

Determination: No significant impact.

HUMAN ENVIRONMENT

LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS - *Assess whether the proposed project is inconsistent with any locally adopted environmental plans and goals.*

The project is consistent with planned land uses.

Determination: No significant impact.

ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES - *Assess whether the proposed project will impact access to or the quality of recreational and wilderness activities.*

The proposed project will not inhibit, alter, or impair access to present recreational opportunities in the area. The project is not expected to create any significant pollution, noise, or traffic congestion in the area that may alter the quality of recreational opportunities. The proposed place of use and diversion do not exist on land designated as wilderness.

Determination: No significant impact.

HUMAN HEALTH - *Assess whether the proposed project impacts human health.*

This proposed use will not adversely impact human health.

Determination: No significant impact.

PRIVATE PROPERTY - *Assess whether there are any government regulatory impacts on private property rights.*

Yes___ No **X** *If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.*

Determination: No impact.

OTHER HUMAN ENVIRONMENTAL ISSUES - *For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.*

Impacts on:

- (a) Cultural uniqueness and diversity? None identified.
- (b) Local and state tax base and tax revenues? None identified.
- (c) Existing land uses? None identified.
- (d) Quantity and distribution of employment? None identified.
- (e) Distribution and density of population and housing? None identified.
- (f) Demands for government services? None identified.
- (g) Industrial and commercial activity? None identified.
- (h) Utilities? None identified.
- (i) Transportation? None identified.
- (j) Safety? None identified.
- (k) Other appropriate social and economic circumstances? None identified.

2. Secondary and cumulative impacts on the physical environment and human population:

Secondary Impacts: None identified.

Cumulative Impacts: None identified.

3. Describe any mitigation/stipulation measures:

None.

4. Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:

The only alternative to the proposed action would be the no action alternative. The no action alternative would not authorize the diversion of groundwater.

Part III. Conclusion

1. Preferred Alternative

Issue a water use permit if the Applicants prove the criteria in 85-2-311 MCA are met.

2. Comments and Responses

None.

3. Finding:

Yes___ No_X Based on the significance criteria evaluated in this EA, is an EIS required?

If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action:

No significant impacts related to the proposed project have been identified.

Name of person(s) responsible for preparation of EA:

Name: Travis Wilson

Title: Water Resource Specialist

Date: May 19, 2023